



*eldes*

# ESR100

ELDES DIGITAL RECEIVER

## Contents

1. QUICK START GUIDE.....	3
2. RECOMMENDED NETWORK DIAGRAM.....	5
3. TOOLBAR.....	6
4. ADMIN .....	6
5. LOWER TOOLBAR.....	7
6. DEVICES .....	8
7. CLIP DATA BASE.....	10
8. MONITORING .....	11
9. GSM .....	12
10. RECEIVER .....	13
11. PASSWORD RESET.....	14

## 1. QUICK START GUIDE

### Package Content

1. ESR100.....qty. 1
2. Power supply.....qty. 1
3. User manual .....
4. Quick start guide .....
5. GSM antenna .....
6. Password reset token.....qty.1

### Main unit



Power button	Off - device is not powered up; Red - device is powered up and turned Off; Blue - device is powered up and turned On.
Power LED	Off - device is turned off; Steady On - device is turned on.
HDD LED	Off - device is not active; Blinking several times per second - device is currently active.
SIM Card Slot	Slot for the SIM card.
USB	USB to serial converters (USB 1... 4).
COM	Serial connection
ANT	GSM antenna connection

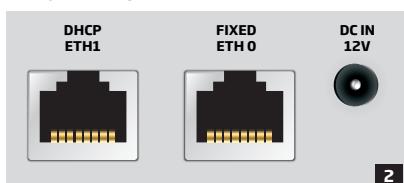
### How to start

Before you begin using ESR100 you will have to perform certain system configurations, depending on your network topology or personal preferences.

This can be done by connecting ESR100 to your local area network (LAN) or a personal computer and using an Internet browser. For best security and user experience please use a modern web-browser like: Chrome, Firefox, Opera, IE9+.

There are 2 ways to make ESR100 available in your local area network (LAN):

1. Via ETH0 Fixed (192.168.1.10) Recommended
2. Via ETH1 DHCP



### CONNECTION VIA ETH0 FIXED (192.168.1.10)

Connect the ETH0 port to your personal computer via the LAN cable.

In order for the device to start working, you need to make sure that Your machine's IP address is in the same subnet as the device's IP address. Also, please make sure that your machine's netmask is the same as the device's netmask (255.255.255.0).

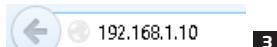
#### Example:

Your IP address: **192.168.1.xxx**

Device's IP address: **192.168.1.10**

xxx - any number besides 10.

Next, enter the I.P. address in the address bar of your browser and press enter:



You should be redirected to the Login window, where you can enter your default user name and password , see picture below.



## Login

Username	<b>admin</b>
Password	<b>admin</b>

**Login**

**4**

After the successful login procedure, you will be able to start operating the device. For more information and control options, please refer to About section of the device web-interface.

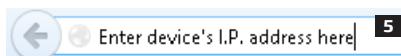
### CONNECTION VIA ETH1 DHCP

Connect the ETH1 port (see pic. 2) to the router, running a DHCP server, which in turn must be connected to your personal computer via the LAN cable.

The device should automatically set up the connection

After connecting the cable, you will need to find out the device's IP address. You can do that in your DHCP server settings or by contacting your internet service provider.

Enter the specified I.P. address of the device in your browser's address bar.



You should be redirected to the Login window, where you can enter your default user name and password , see picture below.



## Login

Username	<b>admin</b>
Password	<b>admin</b>

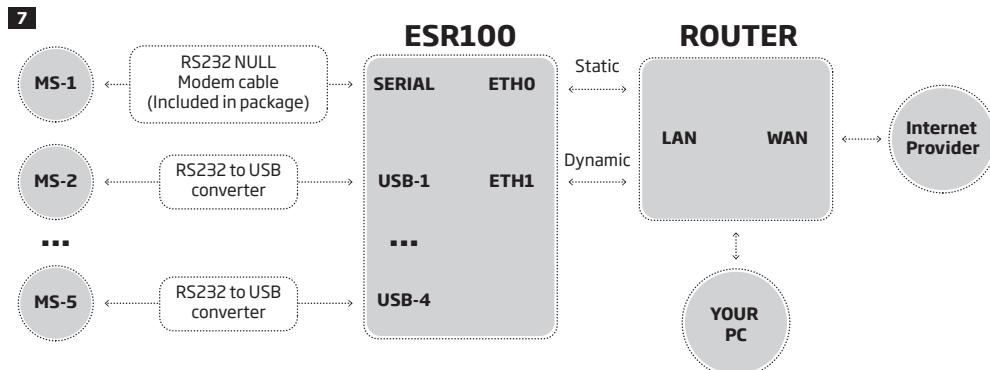
**Login**

**6**

After the successful login procedure, you will be able to start operating the device. For more information and control options, please refer to About section of the device web-interface.

## 2. RECOMMENDED NETWORK DIAGRAM.

It is highly recommended to use the following ESR100 network connection diagram:



**NOTE:** MS - Monitoring Station, you can connect up to 5 monitoring stations.

ESR100 uses 3 ports:

- Http (80) - web interface
- Ssh (22) - remote updates
- Receiver (15000) - incoming data from wireless devices.

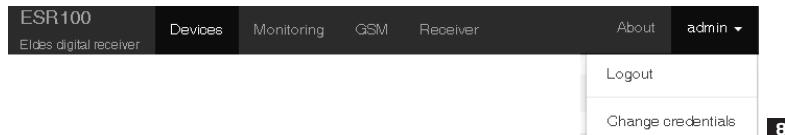
You need to set port forwarding in your Router for these ports.

For safety reasons, we recommend to set port forwarding only for receiver port (15000 by default) and access web interface only from local network.

We do not recommend to connect ESR100 directly to WAN. However, this possibility is available.

In this case we recommend to turn off remote access on ETH0 or ETH1 (depending to witch WAN is connected) in web interface section Receiver.

### 3. TOOLBAR



**Devices** - opens the Devices section, where you can review information about wireless devices and adjust their settings.

**Monitoring** - opens the Monitoring station window, where you can manage monitoring station settings.

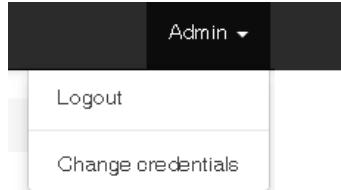
**GSM** - opens the GSM settings window, where you can view the modem status and change CSD settings.

**Receiver** - this section provides receiver control options and LAN configuration settings.

**About** - redirects to the help section, where you can download the user manual for current version.

**NOTE:** The upper toolbar is fixed at the top of the window and will appear in all sections

### 4. ADMIN



Admin - opens up the drop-down list, which allows you to logout or change admin credentials, like the username and password.

#### Change login credentials

Current Username

Current Password

Username

Password

Password Repeat

**Change** 10

To change current login credentials you have to enter your current username and password in specified fields. Then you need to enter your new username and password, and click Change button afterwards.

## 5. LOWER TOOLBAR

The lower toolbar provides you with information about the modem and receiver status, as well as information about system load, memory usage copyright information and the current version of the Web platform.



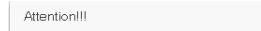
### Modem - Shows the modem status.

Values:

- Online - shows the modem signal strength level
- Offline - no SIM card inserted or SIM card is not active.

When the modem is offline, a icon will appear next to the modem status, indicating that the modem isn't working. When you mouseover the icon, you can view the notification, regarding the modem's offline status.

When the modem starts up, the icon will disappear.



### Receiver - Shows the receiver status.

Values:

- Running
- Not running

**System load %** - Specifies how much system resources are currently used.

**Memory usage %** - Specifies current memory usage of the system.

**NOTE:** The lower toolbar is fixed at the bottom of the window and appears in all sections.

## 6.DEVICES

Devices section displays information about wireless devices, which are currently being monitored.

Unit ID	Account	Last Channel	Last Channel Value	FW Version	GSM Level	Updated	Timeout 1	Timeout 2	Timeout 3	Monitoring Station
0015	0015	UDP	192.168.3.12	22.01.48		2014-06-06 16:22:48	15	60	240	Serial ▾
0001	0001	UDP	192.168.3.12	33.95.61		2014-06-06 15:22:42	5	60	240	Serial ▾
0008	0008	UDP	192.168.3.12	69.91.07		2014-06-06 15:22:26	15	60	240	Serial ▾

13

Wireless devices which are not communicating with the receiver are highlighted in red.

**Unit ID** - Identification number of a certain wireless device.

Unit ID	Acco
IMEI: 12996001346383	

14

**NOTE:** When you put your mouse over a certain unit ID, a box will pop up, indicating the IMEI number of the device.

**ATTENTION:** Unit and Account ID must be unique. If two units or accounts will have the same ID number, the device will not be able to operate correctly. It is recommended that the account ID and Unit ID would be the same and unique.

**Account** - Identification number of the account, assigned to a wireless device, which is sent to the monitoring station during data transmission.

**Last Channel** - Data transmission channel used to receive the last event.

Available channels:

- TCP
- UDP
- SMS
- CSD

**Last Channel Value** - Value, depending on the channel used to receive the last event.

Last Channel Value
192.168.3.12

15

If the Last Channel used for data transmission was TCP/UDP, the value will be specified as an IP address.

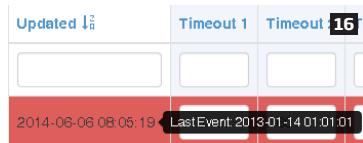
If the Last Channel used for data transmission was SMS/CSD, the value will be specified as a telephone number.

**NOTE:** If the CLIP DB parameter is turned ON and SMS/CSD channel is used for data transmission, the Last Channel Value field will display a name assigned to the telephone number in CLIP DB database. For more information see chapter **6. CLIP DB**.

**FW Version** - Current firmware version of connected devices.

**GSM Level** - GSM signal strength level.

**Updated** - time of the last ping or any data received from a certain wireless device by the monitoring station.



**NOTE:** When you put your mouse over a certain event time, a box will pop up, indicating the date and time of the last Contact-ID event received from the wireless device. This date and time is received from a wireless device.

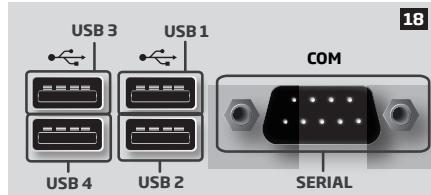
**Timeout 1... 3** - If there were no messages from the device during the set time value in the Timeout 1,2 and 3 a notification is sent to the monitoring station after each timeout.

All timeout values are indicated in minutes. You can see that, when you put your mouse over any of the Timeout headline. If one of the Timeout values is set to 0, the notifications will not be sent.



**Monitoring station** - Shows which monitoring station receives a certain event and what data transferring type was used.

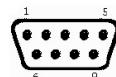
There are 2 ways of connection. Directly via a serial port, or via one of the 4 available USB ports , using USB to Serial converter. Serial is default port, so if USB1-4 is down it will send data through Serial port.



#### Serial port pin definitions

RS232 Port

[19]



Pin	Definition	Pin	Definition
1	DCD	2	RXD
3	TXD	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI		

**Serial** - Serial port

**USB1** - USB port

**USB2** - USB port

**USB3** - USB port

**USB4** - USB port

**ATTENTION:** If you want ESR100 to display event times correctly, you must set the Time Settings. The time settings can be found in Receiver menu.

#### Delete button



[20]

You can delete a certain device from the database by clicking the Delete button next to it. After the button is pressed, a message will pop up, asking you to confirm your action.

## 7. CLIP DATA BASE

**ATTENTION:** Numbers which are NOT added to the CLIP Data Base will NOT be able to communicate with the monitoring station.

### CLIP Data Base

CLIP Data Base  **21**

CLIP Data Base section allows you to turn on CLIP Data Base function. When it is turned on, the system will receive incoming alerts and event notifications Only from the numbers located in the list.

Each time CLIP Data Base function is turned ON or OFF a verification window pops up, asking you to confirm your actions.

**Add New Number**

**Add New Number** - Allows to add a new number to the CLIP Data Base section. Pushing this button takes you to a number adding section, where you have to enter your number and name.

## Add New Number

Name

Number

Add

**22**

After entering the required information in the appropriate fields, click the **Add** button.

Name	Number	Updated	
John	4462369122263	2014-06-26 07:58:47	 
Peter	3793126215325	2014-06-26 08:00:53	 

### Numbers:

**Name** - name of a user in the database.

**Number** - telephone number of the user in the database.

**Updated** - last time the user information was added or updated.

### Additional options:

There are three buttons next to each entry in the database.

**24**

**1. View button** - show more detailed information about the certain user.

**2. Edit button** - change information of an existing user.

**2. Delete button** - delete existing user from the database.

Unit ID	Account	Last Channel	Last Channel Value	FW Version	GSM Level	Updated	Timeout 1	Timeout 2	Timeout 3	Monitoring Station
0003	00XG	SMS	Marius	71.10.00		2014-04-22 11:47:40	15	60	240	Serial

**25**

If the CLIP Data Base parameter is turned ON and SMS/CSD channel is used for data transmission, the **DEVICES → Last Channel Value** field will display a username assigned to the telephone number in CLIP Data Base.

## 8.MONITORING

Monitoring section provides access to monitoring station settings.

### Monitoring

Name	Baudrate	Data Bits	Parity	Stop Bits	Flow Control	Receiver No	Line No	Heartbeat	Heartbeat Period (s.)	⋮
Serial	9600	8	None	1	OFF	1	0	ON	30	⋮
USB 1	9600	8	None	1	OFF	1	0	OFF	30	⋮

26

**Name** - name of the channel, receiving data from the monitoring station.

**Baudrate** - speed of COM port settings.

**Heartbeat** - function, allowing to check the signal between the monitoring station and the receiver.

**Heartbeat Period (s.)** - pauses between signal checks in seconds.

**Receiver No** - receiver number (0 - 9).

**Line No** - line number (0 - 9).

### Heartbeat Period (s.)

27

25

Heartbeat Period (s.)

must be no less than

30.

**ATTENTION:** Minimum value of the Heartbeat Period is 30 seconds. The system will not allow to enter a lower value than 30 seconds.

### Editing monitoring station parameters

Name	Baudrate	Data Bits	Parity	Stop Bits	Flow Control	Receiver No	Line No	Heartbeat	Heartbeat Period (s.)	⋮
Serial	9600	8	None	1	OFF	1	0	ON	30	⋮
USB 1	9600	8	None	1	OFF	1	0	OFF	30	⋮

28

Parameters, which have been edited have a green outline around them.

In order to save edited options, you must click the check-box, located at the end of each entry in the table.

Serial	9600	8	None	1	OFF	1	0	ON	30	⋮
USB 1	9600	8	None	1	OFF	1	0	OFF	30	⋮

29

After you click the check-box, the Submit Selected button will be highlighted and you will be able to save your parameters.

 Submit selected

30

## 9. GSM

GSM section lets you check the modem status and configure CSD parameters.

In order to use the GSM section, you will need to insert a SIM card with disabled PIN code request into ESR100.

You can disable the PIN code by placing the SIM card in your mobile phone and following the appropriate menus on your mobile phone.

For maximum system reliability we recommend you NOT to use a Pay As You Go SIM card. Otherwise, in the event of insufficient credit balance on the SIM card, the system would fail to function correctly.

We also recommend you to disable call forwarding, voice mail/text message reports on missed/ busy calls. Please contact your GSM provider for more details on these services and how to disable them.

### Modem status

Status	Online
Signal level	-81 dB
Operator	Omnitel
Country	Lithuania
IMEI	351535052768728
Last update	2014-06-19 11:50:28
	31

The modem status window show different information about the modem.

**Status** - modem status, online/offline.

**Signal level** - current modem signal level.

**Operator** - current GSM operator.

**Country** - the country of the current GSM operator.

**IMEI** - IMEI number of the modem.

**Last update** - time of last update of the modem status information.

CSD settings are used to set up parameters for transferring data through CSD.

### CSD Settings

Connect Time	45
Session Time	90

30

Submit

**Connect Time** - A period of time intended for the device to call the receiver, connect and start exchanging data.

**Session Time** - A period of time, intended for data transferring. After the receiver receives a call from a wireless device and successfully establishes connection, it starts transferring data. The data transfer ends and the receiver hangs up after the set time in this field, even if some of the data wasn't successfully transferred.

**Submit** button - Saves changes to the CSD settings.

## 10. RECEIVER

Settings section allows you to view receiver status and control options as well as configure LAN parameters.

### Control

Status	Running	
Version	1.1.0	

**Start**

**Restart**

**Stop**

32

**Start** button - activates the receiver (providing it was deactivated). Activates the receiver if it was previously turned off.

**Restart** button - restarts the receiver. Used to restart the receiver if malfunctions or problems are present.

**Stop** button - deactivates the receiver (providing it was activated). Used to deactivate the receiver when maintenance or device relocation is required.

**Status** - show current receiver state, running/not running.

**Version** - specifies the version of the receiver.

refresh button - Refreshes the *Status* window, so the latest receiver status could be seen.

**ATTENTION:** If the receiver is turned Off, devices will NOT be able to communicate with the monitoring station by any channel (TCP; UDP; SMS or CSD).

### Network Settings

#	Name	Remote Access	Type	Status	MAC	IP	Netmask	Gateway
1	eth0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	00:10:f3:3c:76:d2	192.168.3.48	255.255.255.0	192.168.3.1
2	eth1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	00:10:f3:3c:76:d3	192.168.1.114	255.255.255.0	192.168.1.1

Submit

33

**#** - sequence number of receiver ports.

**Name** - names of receiver ports.

**Remote access** - This will disable remote access on eth0 or eth1 port through http(80) and ssh(22) ports. Remote access can be disabled only on one port at a time (eth0 or eth1).

**Type** - network protocol type

- **dhcp** - dynamic host configuration protocol
- **static** - static network configuration protocol

**Status** - current status of the network, Online/Offline.

**Mac** - network address of a certain port.

**IP** - IP address of a certain port.

**Netmask** - subnet mask of your IP address.

**Gateway** - your network gateway.

**Submit button** - saves the changes and reboots ESR100.

**NOTE:** If the network settings have been changed and the user does not log on within the next 15 minutes, the network settings will revert to default state (see pic. 32).

### TCP/UDP Port

TCP/UDP Port is used for exchanging data with security systems such as Eldest EPIR3 and ESIM364.

## Ports

34

TCP / UDP

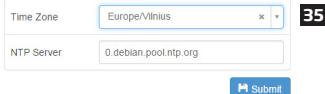
27000

 Submit

Default value of TCP/UDP port is 15000.

## Time Settings

In order for the monitoring station to display events and update information correctly, you must set the Time zone.



Time Zone: Europe/Vilnius  
NTP Server: 0.debian.pool.ntp.org

 Submit

35

You can do that by clicking the arrow on the left of the timezone field, and selecting the timezone from the drop-down list. After you have selected the time zone, press the Submit button.

The default Timezone value is UTC.

There is also an option to specify the NTP server for time synchronization. If ESR100 is used in closed local network and can't access NTP server, please specify your own local NTP server.

## 11. PASSWORD RESET

ESR100

Eldes digital receiver

36

[Home](#) / Password reset

### Password reset

Please enter password reset token:

 Submit

If you have forgotten your password, you can reset it. You can do it in the Password reset section, which accessible from the main login screen through reset it button.

If you forgot your password you can [reset it](#). 37

In the password reset screen, please enter the information from your password reset token, which is included in the package. After entering the required information press the submit button. Your username and password will be restored to their default values.

If you don't have the password reset token, please contact Eldes support and provide your device imei number. The imei number can be located on the case of the device.



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